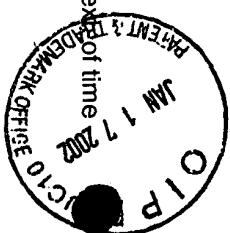


LISTING OF COMPLEX LEAD DEPARTMENTS OFFICE ACTION ENTRIES (more page 4)

Docket Number	Title	Date Mailed	Date Compl	Person to Respo	Filing Date	Comments
C93-003 FWC2	(Mark Quality Inspection Apparatus and Method	7/9/1996	1/9/1997	Russ W.	5/23/1995	John Petry needs to get inputs to RW - he said he would get inputs to RW on 11/11/96.
C95-001	Coarse Wafer Alignment for Steppers	9/4/1996	2/4/1997	Russ W.	3/14/1995	Drawings to be corrected can be done and submitted with OA or when the case is allowed.
C95-042	Multiple Field of View Calibration Plate for use in Semiconductor Manufacturing	9/12/1996	2/18/1997	Russ W.	12/19/1995	
C93-015 FWC	Method and Apparatus for Extensible Command Structure for Machine Vision System	9/16/1996	3/17/1997	MS	1/1/1996	filed 3/17/97 due to the Sunday being 3/16/97.
C95-027	Improved Machine Vision Methods and Articles of Manufacture for Determination of Convex Hull and Convex Hull Angle	10/4/1996	4/4/1997	David Powsner	7/24/1995	
C93-021	Boundary Tracking to find Leads - SMD-3 & TOI	11/18/1996	5/19/1997	M.Stretch	6/2/1995	responded on 5/19/97 with exp of time 5/18/97 was a Sunday.
C93-035	Golden Template Comparison for Rotated and/or Scaled Images	12/2/1996	4/2/1997	Russ Weinzimm	2/22/1995	JP Schott inventor.
C93-012	Improved Circle Location	12/17/1996	6/17/1997	MS	3/11/1994	OA apparently went directly to MS and she responded on final drop dead date.
C93-007 FWC	CC Automated Optical Inspection Apparatus	1/6/1997	4/4/1997	Russ Weinzimm	7/2/1996	Garakani, Koljonen, and Michael are inventors
C95-043	Edge Peak Boundary Tracker	1/13/1997	7/14/1997	Russ Weinzimm	12/6/1995	D. Michael is inventor
C93-013 FWC	Method and Apparatus for Locating, Inspecting, and Placing Large Leaded Devices	2/4/1997	8/4/1997	Russ Weinzimm	10/2/1996	Cullen and Engel are inventors
C95-007	Apparatus and Method for Inspecting Wirebonds on Leads	3/5/1997		Russ Weinzimm	6/30/1995	Inventors: Koljonen and Petry
C95-044	Locating Shapes in Two-Dimensional Space Curves	3/12/1997	9/12/1997	Russ Weinzimm	1/2/1996	Inventor - David Michael
C95-047	Machine Vision Method and Apparatus for Edge-Based Image Histogram Analysis	3/24/1997	5/28/1997	DJP	12/31/1995	inventors: Ohashi and Weinzimmer
C95-017	Method and Apparatus to Locate and Measure Capillary Indentation Marks on Wire-Bonded Leads	5/8/1997	11/10/1997	M. Stretch	8/31/1995	Koljonen and Petry are inventors
C94-009	Machine Vision Method and Apparatus for Finding a Characteristic of an Object Image	5/12/1997	10/10/1997	RW	10/26/1994	RW to respond within 2 months with FWC. RW to file Preliminary Amendment by 8/12/97.



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C95-015	Method and Apparatus for High Speed Identification of Objects having an Identifying Feature	5/15/1997	9/15/1997 RW	3/7/1996
C95-001	Coarse Wafer Alignment for Steppers	5/22/1997	9/22/1997 Russ W.	3/14/1995 This OA is a FINAL OA. Drawings to be corrected can be done and submitted with OA or when the case is allowed.
C93-029	Method and Apparatus for Remote Monitoring and Control of Automated Video Data Systems	5/30/1997	9/30/1997 DJP	2/8/1994
C95-002	Image Rotating Method for Locating Bond Pads in an Image	6/27/1997	9/26/1997 DJP	10/31/1995
C95-039	Template Rotating Method for Locating Bond Pads in an Image	6/27/1997	11/25/1997 DJP	10/31/1995
C95-023	System for Finding the Orientation of a Wafer	7/1/1997	12/23/1997 RW	7/18/1995
C93-007FWC CC	Automated Optical Inspection Apparatus	7/2/1997	10/30/1997 RW	7/2/1996
C95-011/C93-03	Golden Template Comparison for Rotated and/or Scaled Images	7/10/1997	RW	2/22/1995
C95-011/C93-03	Golden Template Comparison for Rotated and/or Scaled Images	7/10/1997	1/12/1998 RW	2/22/1995 The 10th was a Saturday - so it was acceptable to file with extensions on the following Monday.
C96-003	Machine Vision Methods for Inspection of Semiconductor Die Surfaces	7/24/1997	DJP	3/21/1996
C96-003	Machine Vision Methods for Inspection of Semiconductor Die Surfaces	8/20/1997	DJP	3/21/1996
C95-020	Method of Testing a Machine Vision Inspection System	8/25/1997	1/8/1998 DJP	3/15/1996
C96-010	Machine Vision Methods for Inspection of Leads on Semiconductor Die Packages	8/26/1997	1/22/1998 DJP	3/21/1996
C93-032	Automated Optical Inspection Apparatus using Nearest Neighbor Interpolation	9/3/1997	5/29/1997 RW	1/3/1997
C92-003CN2	Method and Apparatus for Locating Patterns in an Optical Image	9/29/1997	3/30/1998 Tracy C.	11/12/1996
C96-030	Depth from Defocus Optical Apparatus with Invariance to Surface Reflectance Properties	10/8/1997	3/19/1998 RW/TC	12/31/1996
C94-009	Machine Vision Method and Apparatus for Finding a Characteristic of an Object Image	10/10/1997	4/8/1998 TC	10/26/1994 NOA appeal filed 10/10/97 - Responded with CPA appl filed 4/8/98

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C95-006	Improved Machine Vision Methods and Articles of Manufacture for Ball Grid Array Inspection	11/26/1997	5/26/1998 DJP	8/31/1995	Not docketed by Lin Olsen - found in files 5/1/98. Overrighted to DJP 5/4/98.
C96-004	Model-Based Adaptive Segmentation	12/3/1997	5/4/1998 TC to respond	10/23/1996	
C95-034	Single Step Coarse Registration and Inspection of Circular Objects	12/4/1997	3/3/1998 Bmichaels	5/6/1996	
C95-007	Apparatus and Method for Inspecting Wirebonds on Leads	12/9/1997	5/1/1/1998 TC	6/30/1995	filed Notice of Appeal
C96-025	Machine Vision Methods and Apparatus for Machine Vision Illumination of an Object	12/9/1997	5/1/1/1998 DJP	1/6/1997	
C93-003FWC2	Mark Quality Inspection Apparatus and Method	1/7/1998	6/8/1998 TC	1/9/1997	
C96-013	Fast, Inexpensive, Subpixel Edge Detection	1/27/1998	7/27/1998 RW	10/7/1996	
C93-032	Automated Optical Inspection Apparatus using Nearest Neighbor Interpolation	1/30/1998	7/27/1998 TC	1/3/1995	NOAppeal filed 1/30/98 - Respond by filing two CPAs
C96-001	Robust Search for Image Features Across Image Sequences Exhibiting Non-Uniform Changes in Brightness	2/2/1998	6/2/1998 TC	2/7/1996	
C96-027	Low-Profile Image Formation Apparatus	2/3/1998	8/3/1998 RW	12/4/1996	file with IDS
C96-029	System for Obtaining a Uniform Illumination Reflectance Image During Periodic Structured Illumination	2/13/1998	8/1/1/1998 RW	12/31/1996	
C96-021	Machine Vision Calibration Targets and Methods of Determining Their Location and Orientation in an Image	3/11/1998	9/1/1/1998 DJP	10/7/1996	
C96-022	Nonfeedback-based Machine Vision Methods for Determining a Calibration Relationship Between a Camera and a Moveable Object	3/12/1998	8/12/1998 DJP	11/21/1996	
C96-003	Machine Vision Methods for Inspection of Semiconductor Die Surfaces	3/25/1998	8/1/1/1998 DJP	3/21/1996	
C96-010	Machine Vision Methods for Inspection of Leads on Semiconductor Die Packages	3/25/1998	8/1/1/1998 DJP	3/21/1996	
C92-003CN2	Method and Apparatus for Locating Patterns in an Optical Image	3/30/1998	9/30/1998 RW/TC	11/12/1996	NOAppeal filed 3/30/98 - Respond with CPA
C93-036 CON	Method and Apparatus for Ball Bond Inspection System	4/3/1998	9/24/1998 RW	12/2/1996	

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C94-009 CPA	Machine Vision Method and Apparatus for Finding a Characteristic of an Object Image	4/8/1998	6/25/1998 TC	4/8/1998 CPA filed on 4/8/98 without Preliminary Amendment - Need to file a Preliminary Amendment.
C96-011	Machine Vision Methods for Image Segmentation Using Multiple Images	4/9/1998	9/1/1/1998 DJP	3/21/1996
C95-020	Method of Testing a Machine Vision Inspection System	4/15/1998	9/15/1998 DJP	3/15/1996
C95-007	Apparatus and Method for Inspecting Wirebonds on Leads	5/1/1/1998	11/1/0/1998 RW/TC	6/30/1995 RW - need response to Notice of Appeal
C96-008	Vision System for Analyzing Solid-of-Revolution Radius Profile	5/13/1998	11/13/1998 RW	11/29/1996
C93-021 CPA	Boundary Tracking to find Leads	5/22/1998	11/23/1998 RW	6/2/1995
C96-006	Bandwidth Reduction of Multichannel Images for Machine Vision	6/26/1998	3/8/1999 DJP	5/15/1997 DJP neglected to file OA response - went Abandoned. He will file Petition to Revive. Petition Filed 3/8/99.
C96-009	Machine Vision Methods for Determining Characteristics of Three Dimensional Objects	7/1/1998	1/4/1999 DJP	4/1/1996
C95-003	Method and Apparatus for In-Line Solder Paste Inspection	7/30/1998	10/31/1998 RW respond by €	12/19/1996
C97-003	Machine Vision Methods for Identifying Collinear Sets of Points in an Image	8/1/1/1998	2/8/1999 DJP	3/18/1997
C96-010	Machine Vision Methods for Inspection of Leads on Semiconductor Die Packages	8/18/1998	DJP-ADVISORY	3/21/1996
C96-025	Machine Vision Illumination of an Object	8/20/1998	2/10/1999 DJP	1/6/1997
C97-011	Constraint Satisfying Image Sub-sampler	8/21/1998	11/23/1998 Tony Miele	3/18/1997
C97-010	Machine vision methods for determining characteristics of an object in an image	8/24/1998	2/24/1999 David J. Powsnei	3/20/1997
C95-006 CPA	Improved Machine Vision Methods and Articles of Manufacture for Ball Grid Array Inspection (BGA)	9/4/1998	2/4/1999 DJP	7/23/1998 DJP to respond to OA to get claims 3, 2,4,5, and 10 allowed and file a Continuation for rejected claims.
C97-002	A System for Determining the Position of a Generally Rectangular Device	9/4/1998	12/2/1998 Tony Miele	3/18/1997
C95-043 CON	Edge Peak Boundary Tracker	9/15/1998	1/12/1999 TC - terminal disc	6/17/1998 TC to file a Terminal Disclaimer by 1/15/99/
C96-013	Fast, Inexpensive, Subpixel Edge Detection	10/9/1998	1/7/1999 TC - This is a FINAL OA	TC to file a Notice of Appeal before 1/9/99.
C96-001	Robust Search for Image Features Across Image Sequences Exhibiting Non-Uniform Changes in Brightness	10/14/1998	3/15/1999 TC - final OA	2/7/1996 TC to file CPA with prelim. Amendment

← notice of withdrawal filed for C96-035 withdrawn & received if it were.

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C96-022	Nonfeedback-based Machine Vision Methods for Determining a Calibration Relationship Between a Camera and a Moveable Object	10/21/1998	12/31/1998	DJP - FINAL OA	11/21/1996	Filed CON	
C93-032 CPA	Automated Optical Inspection Apparatus using Nearest Neighbor Interpolation	10/21/1998	12/18/1998	TC respond to Fi	1/3/1995	CPA filed w/o Prelim. Amendment 7/27/98 - Did not file in time - rec'd final OA dated 10/21/98.	
C96-027	Low-Profile Image Formation Apparatus	10/28/1998	7/23/1999	T. Miele respond	12/4/1996	T. Miele filed CPA	
C95-042 CON	Multiple Field of View Calibration Plate for use in Semiconductor Manufacturing	11/16/1998	4/16/1999	TC	6/22/1998		
C96-021	Machine Vision Calibration Targets and Methods of Determining Their Location and Orientation in an Image	11/24/1998	2/8/1999	DJP	10/7/1996		
C96-011	Machine Vision Methods for Image Segmentation Using Multiple Images	12/16/1998	3/16/1999	DJP	3/21/1996	2nd OA	
C97-014	Analysis of an Image of a Pattern of Discrete Objects	12/17/1998	5/17/1999	TC	7/16/1997		
C95-007 CPA	Apparatus and Method for Inspecting Wirebonds on Leads	1/14/1999	6/14/1999	TC	11/10/1998		
C96-009	Machine Vision Methods for Determining Characteristics of Three Dimensional Objects	2/17/1999	6/2/1999	DJP to respond to	4/1/1996		
C97-011	Constraint Satisfying Image Sub_sampler	2/17/1999	4/6/1999	Tony Miele respo	3/18/1997	T Miele also filed a Continuation Application on 04/06/99.	
C96-002	System or Method for Detecting Defect within a Semi-Opaque Enclosure	2/17/1999	4/7/1999	Tony Miele respo	9/24/1996		
C97-001	Machine Vision System for Identifying and Assessing Features of an Article	2/18/1999	4/30/1999	Tony Miele	1/17/1997		
C96-021	Machine Vision Calibration Targets and Methods of Determining Their Location and Orientation in an Image	2/23/1999	4/20/1999	DJP	10/7/1996	DJP filed CPA in response to Advisory Action 04/20/99 in order to get amendments allowed.	
C97-029	Fast High-Accuracy Multi-Dimensional Pattern Localization	3/3/1999	9/2/1999	Russ	11/26/1997	PatMax application. Core technology. Russ will most likely respond to OA after 08/03/99 (5th month) Filed Notice of Appeal From the Primary Examiner to the Board of Appeals 9/2/99 (w/three mth. ext)	
C97-003	Machine vision methods for identifying collinear sets of pints in an image	3/3/1999	8/2/1999	DJP	3/18/1997	DJP also filed 2 mth. extension w/Response	
C97-030	Efficient Flexible Digital Filtering	3/5/1999	9/2/1999	DJP	11/15/1997	filed w/three month extension	